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#### ABSTRACT

After looking at reasons why research on teaching has had limited impact, this paper suggests alternative ways to generate and use research to achieve more productivity and indicates implications for educational practice. The author contends that the Research, Development, and Dissemination model of educational change, with its implicit view of change being caused from the outside, has impeded the implementation of research findings in classrooms. Furthermore, teachers are not avid readers of research literature, which is fragmented, difficult to locate, hard to interpret in operational terms, impersonal, and characterized by conflicting findings. A more effective way to assure that research is used is for researchers, teachers, and principals to work collaboratively in classrooms, isolating questions worth exploring, collecting objective data that accurately reflects classroom occurrences, and analyzing that data with a view to reaching informed decisions on whether or not to change. (Author/JM)

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# THE AUSTRALIAN ADMINISTRATOR

A Professional Publication for Educational Administrators

## SCHOOL OF EDUCATION, DEAKIN UNIVERSITY

Published bi-monthly, February to December

EDITOR: Dr. W. J. Smyth w

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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### Vol. 2, No. 1.

Despite the investment of huge amounts of time and effort, the question of the real utility of research on teaching still remains an enigma. This paper explores some of the reasons why research on teaching has not been extensively incorporated into classroom practice. Consideration is given to a more plausible technique involving the collaborative endeavours of teachers, principals and outsiders. (Ed.)

# RESEARCH ON TEACHING: WHAT'S IN IT FOR ME?

W. John Smyth

#### INTRODUCTION

A matter that has long intrigued and worried me (and others, see Fenstermacher, 1979) is what happens to research on teaching once it is finished? This question is analogous to the small child who asked of his father: "Daddy, where does the snow go after it melts?" (Fenstermacher, 1980) if only the answer to the educational question were as clear and simplet

Searching for an answer to this perplexing question 1. came across a delightful fairytale by Flanders (1976) that warrants repeating:

Once upon a time a persistent educational researcher worked very hard for long hours and discovered many differences between the effective teachers who were good and the ineffective teachers who were bad. As he discovered each difference, he ran to the professors of education and told them all about it with great excitement. The professors, of course, were overloyed and not only included this new knowledge in their curri-

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cula for beginning teachers, but incorporated it into their own teaching methods. As a result, better teachers taught boys and girls to become better citizens and everyone lived happily ever after (p. 167).

Flanders cites this fairytale to illustrate that those directly involved in research on teaching confidently believe that in the long-run their activities will lead to an improvement in the education of children. He goes on to say; "the discrepancies between this fairytale and the real world are so glaring, a cynic could go on for hours, hardly knowing where to begin" (p. 167).

The purpose of the present paper is threefold. Firstly, to uncover some of the reasons why research on teaching has had such a limited impact on classroom practice; secondly, in the light of what we know about the limited use of research findings, to suggest some alternative uses that appear more productive; and finally, to indicate the implications for educational practice. I shall not be concemed at all with reporting on the large and expanding volume of actual findings from research on teaching. Excellent reviews exist elsewhere (Dunkin & Biddle, 1974; Good, 1979; Peterson & Walberg, 1979; Hogben, 1980; Power, 1979).

#### THE PROBLEM

Power (1979) argues that the major problem with educational reform in the past has been its seductive nature. He likens the activities of educational researchers to those of gypsies. Accordingly, "gypsies are nomads on the fringe of society who eam their keep by telling fortunes, selling trinkets, and who, if legend has it right, seduce virgins" (p. 3). So it is too with educational researchers!

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One of the most seductive, masterful and damaging perpetrations of these would-be reformers of the educational enterprise has come in the form of the Research, Development and Dissemination (RDD) model of educational change (Havelock, 1969). Borrowed from agriculture this model had wide currency in educational circles in the decades of the 60's and 70's. It was based on the logical belief that research should be conducted by academic's knowledgeable about (but not involved in) classroom teaching; that subsequent research findings be used to develop educational materials and products (via curriculum experts), and that appropriate agencies be created to disseminate these packages to eager and willing classroom teáchers.

Tikunoff, Ward & Griffin (1980) indicate the RD & D model to have been seriously flawed in a number of important respects. Firstly, the functions of RD & D were conceived and carried out separately by persons not actually involved in classfroom teaching. As a result, research frequently, focussed on questions that were irrelevant to teachers. Secondly, where important and relevant findings dld emerge they were often couched in language that was unintelligible to teachers, Thirdly, teachers were regarded as "consumers" of research, rather than as partners in improving teaching/learning (c.f. Chittenden & Bussis, 1979). Finally, because of the separateness of the RD & D steps, the entire process involved a time lag of up to 10 years.

Quite apart from the problems of the RD & D model, there are still formidable difficulties in closing the gap between what research on teaching suggests, and actual classroom practices.

The problem, at least in Australia, is a multi-faceted one. According to Hogben (1980):

Australian teachers (and overseas teachers for that matter) are by and large not in close contact with educational research, and rarely attempt deliberately to implement particular research findings in their day-to-day teaching. . teachers tend not to belong to strong academic/professional associations and tend not to subscribe to research journals. Their main contact with research and its application is likely to be an indirect one, through the adoption and use of new standardized tests, curriculum materials, and the like, some of which have a strong research and theoretical base (p. 56).

Hogben suggests three reasons for the poor track-record in converting educational research into classroom practice. Firstly, teachers tend to establish life-long teaching styles early in their careers, with pre-service training having little impact. They tend to model themselves on teachers they come in contact with during their first years of teaching, or according to teachers who taught when they were students. Secondly, there is incentive built into the structure of teaching

to induce teachers into becoming familiar with research findings, or indeed to attempt implementation. "The reward system in few schools in fact recognizes this sort of teacher behaviour" (p. 57). Teaching committments and administrative workloads militate against it as well. Finally, teachers tend to view research as "distant and largely irrelevant, and as offering them little to make their teaching more effective and their work day more, pleasant and rewarding" (p. 57).

In a quaint, abeit hypothetical, scenario Stenhouse (1978) places himself in the situation of a teacher seeking to improve his classroom practice by using research findings. Having by chance located an unpublished research report which addressed his particular problem (proven alternative ways of teaching a unit on race relations) and understood the implications of pre-and-post-tests, non-randomness of sampling, the means, standard deviations and significance levels, Stenhouse was able to arrive at an informed decision about introducing the results of this research into his classroom teaching.

While the circumstance described by Stenhouse is laudable and praiseworthy, it is unfortunately far removed from reality. For starters, teachers are generally not skillful at locating research literature nor in interpreting it once located. One teacher (Muir. 1977), conversant with research methodology, was recorded as saying. Sure, I am impressed, but not as informed as I would be if the language were somewhat more directed towards practising teachers rather than statistical researchers.

Given current reward structures and the diminished prospects of promotion and advancement within schools, the even bigger and as—yet unanswered question, is "why bother?" Speaking of her experiences as a classroom teacher who decided to implement some of the findings from research on teaching, Muir (1977) said: "My old system had worked just fine, everyone was happy, including children, parents, administration, and the results on tests were above average. Why change?" (p. 62) Her conclusion said it all: "It is indeed a fascinating experience to tear your classroom into shreds and then see how long it takes to put it back together again" (p. 51).

Available evidence (Liebermah, 1980; Smyth & Strachan, 1981) does suggest teachers are prepared to become involved in the implementation of research findings if they can see that there is something in it for them. This means ensuring that adequate provision is made for teachers to obtain feedback on how implementation is proceeding, as well as satisfying the conditions of Doyle & Ponder (1976) of ensuring that: (i) the behavioural changes are specific; (ii) teachers are convinced that the changes don't conflict with their perception of role, and; (iii) the proposed changes are cost-effective in terms of teacher time and energy.

To summarize; the RD & D model of educational

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change with its implicit view of change being imposed from "outside", has done a disservice to the cause of implementing findings from research on teaching in classrooms. Furthermore, not only are teachers not habitual or avid readers of research literature, but they tend to defer more to colleagues. For the most part the research literature is fragmented, difficult to locate, hard to interpret in operational terms, and impersonal, to say nothing of the conflicting nature of the evidence which sometimes applies to particular grade levels, with certain types of students, in specific subject matter.

The apparent inherent inability of research on teaching to improve teaching practice was summed up by Stenhouse (1978) "It is as if our society had a sizeable community of virtuoso structural engineers, and yet its bridges kept falling down" (p. 1). The question of "how" teachers stand to gain from research on teaching needs to be looked at in a different context.

#### SOME ANSWERS

Gagné's (1980) rather surprising answer to the question of the best way to get research into schools, ". . . is to put it there" (p. 6). He explains this tautology by arguing for the need to interpret ''research' not as a finished product, but rather as a set of techniques and procedures to be used by teachers to identify problems and test out alternative solutions and strategies. This interpretation radically alters the status of the main participants. Instead of having research "done on them" or "for them" by outside experts. teachers become partners working in a collaborative and interactive way with outsiders. The emphasis is upon identifying problems meaningful to the teacher, collecting data that bear upon them, and suggesting possible, "hypotheses" to be tested out and monitored in the on-going classroom (Smyth, 1980a). This tums the traditional view of the utility of research findings, on its head! According to Good & Power (1976):

escapenalizations about teaching derived from research act as guides to assessing the likely consequences of alternative strategies in complex educational situations. Such generalizations must necessarily be indeterminate since they cannot predict precisely what will happen in a particular case. But this does not decrease their value for the teacher, he is not interested in establishing general laws (p. 47).

While not suggesting that this "clinical" (Fisher & Berliner, 1979) or idiographic view of research on teaching should necessarily supplant or totally replace conventional research. It does offer a valuable and informative alternative to complement existing research strategies.

Fenstermacher (1980) presented three suggestions on how teachers might gain from research on teaching. Firstly, the findings can be used to

formulate "rules" or conclusive statements to be applied directly in classroom situations. Apart from the problem of converting findings into rules, their imposition is likely to be harmful to teachers' self-concept as professionals. Secondly, findings may be used as a source of hypotheses to be trialled experimentally by teachers in their classrooms. In researching their own practice teachers would be required to weigh up the "evidence" collected in their unique situations, with findings from conventional research. It would be as a consequence of this that teachers would decide whether or not to initiate change. Finally, findings from research on teaching could be used in the much broader sense of providing teachers with a language to describe situations and hence grasp a fuller understanding of their meaning and significance. What this really amounts to is the development of "schemata" or ways of seeing phenomena.

#### IMPLICATIONS FOR PRINCIPALS

How school principals can or should make use of findings from research on teaching is a moot point. Some argue that such matters should not be the concern of the principal — he should get on with the job of "running the school". Others argue that being an instructional leader is what the principalship is all about. We could debate at length the merits of an active versus a facilitative form of involvement by principals in the classroom-based professional development of their teachers. My own biases (Smyth, 1980b) favour an "active" involvement by principals in this matter!

Whether principals choose to regard research find-. ings as "rules", or treat them as "evidence" or 'schemata''. depends very much on the particular situation, what they hope to achieve, and what will work. This requires not only an appreciation of the internal dynamics of their schools as organizations, but also an acquaintance with the research literature, if not in detail, at least in a general way. Above all what is required is a sensitivity to the need for frequent first-hand observation of teachers in action (Smyth, 1980c). Coupled with this is the facility to collect accurate and meaningful data in classrooms to provide informative and non-judgemental feedback to teachers on their teaching processes (MacKay & Osoba, 1978). Gaining access to classrooms and determining what and how to observe, are matters that require careful negotiation between principal and teacher. If approached in the correct fashion the presence of another adult in the classroom, far from being a threatening or dehumanizing experience, can be an uplifting and rewarding experience for both observer and observed when undertaken in a collegial, supportive and non-evaluative manner,

Given the obvious difficulties associated with teachers acquiring usable information, about educational practices from printed media alone, and



the -equally difficult task of transferring information presented at in-service seminars and workshops back into classrooms (Freiberg, Townsend, Buckley & Berneman, 1980), collaborative encounters between professional colleagues about actual classroom situations, hold the greatest promise. This job-embedded approach to professional development involving the people most intimately affected by it, provides both a means for generating enthusiasm, while also enabling the questioning and clarification of actual teaching practices. Associated with this will be a change of role for the outside researcher. As Hughes (1980) argues the function of the outside researcher under these circumstances becomes not one of providing "the answers", but rather one of raising questions and suggesting ways teachers and principals might experiment and monitor alternative courses of action given the time and resources likely to be available,

#### **\CONCLUSION**

The question of how to effectively use research on teaching is still an unanswered question after nearly three quarters of a century of research. Of one thing we can be fairly certain! The idea of research being undertaken by outsiders and the findings "applied" to classrooms is far too simplistic an interpretation. Among other things it fails to recognize the way teachers acquire information, or the realities of the classroom settings in which implementation is to occur. A more plausible scenario is one in which researchers, teachers and principals work collaboratively in classrooms, isolating questions worth exploring, collecting objective data that accurately reflects classroom occurrences. and analysing that data with a view to reaching informed decisions on whether or not to change.

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